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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,744	08/26/2003	Hiroshi Sukegawa	009270-0305496	2295

909   7590   01/11/2007
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EXAMINER
LIEW, ALEX KOK SOON

ART UNIT	PAPER NUMBER
2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

OL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/647,744	SUKEGAWA, HIROSHI
	Examiner	Art Unit
	Alex Liew	2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>26 August 2003</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-7,9 and 11-20</u> is/are rejected.

7) ☒ Claim(s) <u>8 and 10</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>26 August 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

    1. ☒ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regards to claim 8, the examiner's search does not show any applicable prior art and / or suggestions disclosing when the similarity is in the range to check *later* whether the registered information is updated <u>in combination</u> with the rest of the limitation in claim 8 and claim 1.

With regards to claim 10, the examiner's search does not show any applicable prior art and / or suggestions disclosing obtaining the similarities with all registered information stored in the registered information memory when identification information was not input in advance by identification information input unit and obtaining the similarity corresponding to the identification information stored in the registered information memory when identification information that can be *partially narrowed down* was input by identification information input unit in advance <u>in combination</u> with the rest of the limitations of claim 10 and all of claim 1.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1, 2, 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated

by Yamaguchi (US pat no 6,608,914).

With regards to claim 1, Yamaguchi discloses a person recognizing apparatus

comprising

        a biometric information input biometric information of persons subjects to

recognition (see col. 4 lines 54 – 57),

        a registered information memory to store biometric information of persons subject

to recognition in advance as registered information (see fig 1 – 18),

        a recognizer to obtain similarities of biometric information input by the biometric

information input unit and registered information stored in the registered information

memory by collating both of them and recognize the person based on the obtained

similarity (see fig 1 – 16 and col. 6 lines 19 – 25) and

        a registered information updating unit to judge whether the similarity obtained by

the recognizer is within a prescribed updating range and based on being judged as the

similarity is within the prescribed updating range, update the registered information

stored in the registered information memory by using the biometric information input by the biometric information input unit (see fig 1 – 20 and col. 8 lines 66 – 67 to col. 9 lines 1 – 3 - when the time lapse is short the system updates biometric data in historical database when similarity values belongs in zone B, with zone B being the prescribed range).

With regards to claim 2, Yamaguchi discloses a person recognizing apparatus according to claim 1, wherein the registered information updating unit changes a ratio to update the registered information according to a value of corresponding similarity when updating the registered information (see col. 9 lines 53 – 60 – alpha and beta are parameters used in updating registered image data shown in col. 8 lines 24 – 31).

With regards to claim 11, Yamaguchi discloses a person recognizing apparatus according to claim 1, wherein the biometric information of the person includes face image (see fig 3).

With regards to claim 12, see the rationale and rejection for claim 1.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 3 – 7, 9, 13 – 15 and 17 - 19 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Yamaguchi ('914) as applied to claim 1 further in view of

Yasuda (US pat no 5,040,213).

With regards to claim 3, Yamaguchi discloses all of the claim elements / features as

discussed above in rejection for claim 1 and incorporated herein by reference, but fails

to disclose updating registered image data based on plural of similarity values. Yasuda

discloses a person recognizing apparatus according to claim 1, wherein the registered

information updating unit judges whether a ratio between plural similarities obtained by

recognizer is more than a prescribed threshold value and based on being judged as the

ratio between plural similarities is more than the prescribed threshold value, updates the

registered information stored in the registered information memory based on the

biometric information input by the biometric information input unit (see fig 2 and col. 1

lines 45 – 62 – D1 is the highest similarity and D2 is the second highest similarity, then

the system takes the ratio of D1 to D2 and compares with the threshold if the ratio is

more than the threshold the reference biometric data will be renew, D1 and D2 are the

similarity values, the input pattern is a speech pattern, which is a biometric input). The

difference of two similarity values is another way to measure similarity values with each

other, the difference between using 'ratio' and 'difference' are just setting a different

threshold requirement to update the reference biometric data.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include updating registered image data based on plural of similarity values because to help the user decides if the input biometric data are free of noise by comparing two consecutive input patterns of the user, to prevent corrupting the reference database (see Yasuda col. 1 lines 28 – 32).

With regards to claim 4, an extension to claim 3, the similarities selected are the first and second highest degree of similarities (see col. 1 lines 46 – 53), which reads on the highest similarity and the similarity next to it. Motivation provided in claim 3.

With regards to claim 5, an extension from claim 3, Yasuda also discloses ratio in the plural similarities is a ratio between the similarity to the registered information corresponding to identification information of *registered person* (is the biometric data of the person in the reference that is compared with the input pattern which obtains a similarity value of D1) and the highest similarity in similarities to *other registered* (is the biometric data of the person in the reference that is compared with the input pattern which obtains a similarity value of D2) information when the identification information of a person subject to the recognition was input in advance (the biometric data were stored in a database, so it was inputted in advance). Motivation provided in claim 3.

With regards to claim 6, an extension of claim 3, Yasuda also discloses a ratio between the similarity to the registered information corresponding to the identification information

(is the biometric data of the person in the reference that is compared with the input

pattern which obtains a similarity value of D1) and an evaluation value obtained by a

part of or all similarities to other registered information (is the biometric data of the

person in the reference that is compared with the input pattern which obtains a similarity

value of D2 and other biometric data which are compared against, third, forth, etc

highest degree of similarity) when the identification information of a person subject to

recognition was input in advance (the biometric data were stored in a database, so it

was inputted in advance). Motivation provided in claim 3.

With regards to claim 7, Yamaguchi discloses all of the claim elements / features as

discussed above in rejection for claim 1 with some of the limitations in claim 7, which

includes a history information memory to store the biometric information input by the

biometric information input unit as the history information (the historical biometric

information are stored in fig 1 – 18) and a tentative registered information preparing unit

to prepare tentative registered information by using the biometric information input by

the biometric information input unit and the registered information stored in the

registered information memory based on completing the recognition by the recognizer,

wherein the registered information updating unit obtains the similarity of the tentative

registered information with the biometric information obtained in the past and stored in

the history information memory, obtains the similarity of the *registered information*

stored in the registered information memory with the biometric information obtained in

the past and *stored in the history information memory* (see fig 10 – fig 10 shows a plot

of similarity versus time, the dots on the graph are processed by the system's

recognition section, fig 1 – 16, using input biometric data and biometric data stored in

reference database, col. 6 lines 19 – 25, the recognition process is taken over a period

of time, those recognition process that occurred earlier are the biometric data from the

pass), but does not discloses when higher similarity is given to tentative registered

information than the registered information than the registered information stored in the

registered information, replaces registered information stored in the registered

information memory to the tentative registered information. Yasuda suggests when

using a highest similarity when comparing input pattern against stored biometric data

and compare to a threshold value the system will renew reference pattern when the

highest similarity is greater than a set threshold (see fig 2 – D1 less than T2 will not

enable the system to renew reference data).

It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to include updating the stored date with tentative data because the

face will be changing from time to time due to facial expressions (see Yamaguchi col.

10 lines 51 – 58), such as sneezing, blinking or coughing expression, which does not

represents the best representation of the face for registration, so selecting the best

biometric data with the highest representation will improve system performance.

With regards to claim 9, see the rationale and rejection for claim 7. In addition,

Yamaguchi discloses recognizing the person repeatedly until final recognized result

(see fig 10 – the points on the plot are similarity values obtained by the recognition

section). Then the system updates or do not update according to time lapses and similarity values (see col. 8 lines 66 – 67 to col. 9 lines 1 – 3 – when the time lapse is short the system updates biometric data in historical database when similarity values belongs in zone B with the lower end being the threshold value). See motivation for recognizing the person repeatedly for a set period of time in claim 7.

With regards to claims 13 and 17, see the rationale and rejection for claims 3 – 6.

With regards to claims 14 and 18, see the rationale and rejection for claim 7.

With regards to claims 15 and 19, see the rationale and rejection for claim 9.

3.   Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi ('914).

With regards to claim 16, see the rationale and rejection for claim 1. In addition, Yamaguchi's system can be use for any personnel access security system (see col. 1 lines 13 – 17). One would include a personnel access security system because to protect secure facilities and its personnel from trespassers from entering and obtaining secure information.

With regards to claim 20, see the rationale and rejection for claim 11.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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1/5/07

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